

# EGCG抗肿瘤作用及其相关靶点的研究进展

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**Title:** Research progress of anti-tumor effect of EGCG and its related targets

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**关键词:** 表没食子儿茶素没食子酸酯; 肿瘤; 自噬; 凋亡; 血管生成

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**摘要:** 表没食子儿茶素没食子酸酯 (epigallocatechin gallate, EGCG) 是绿茶的主要生物活性成分, 是一种多酚类物质, 属于茶多酚的一种。多年来研究发现其在抗氧化、抗炎、抗心血管疾病、抗肥胖、抗糖尿病、抗神经系统疾病、抗肿瘤等方面发挥了预防及潜在的治疗作用, 并可与多种蛋白靶点作用, 影响多种化学通路发挥其上述生物学作用, 如跟自噬相关蛋白LC3-I直接结合促进LC3-II的形成进而促进自噬, 作用于PI3K/AKT通路影响细胞自噬、细胞凋亡、血管生成和细胞周期调控等等。现对其在抗肿瘤方面的作用及其相关靶点作一综述。

**Abstract:** Epigallocatechin gallate (EGCG) is the main bioactive component of green tea and is a polyphenolic substance that belongs to the class of tea polyphenols. Over the years, it has been discovered that it has played a preventive and potential therapeutic role in anti-oxidation, anti-inflammatory, anti-cardiovascular diseases, anti-obesity, anti-diabetic, anti-neurological diseases, anti-tumor, and so on. It can interact with multiple protein targets and affect various biological pathways to exert its biological effects. For example, direct binding to autophagy-related protein LC3-I promotes the formation of LC3-II and promotes autophagy, acting on the PI3K/AKT pathway to affect cell autophagy, apoptosis, angiogenesis, and cell cycle regulation. Its anti-tumor role and its related targets are reviewed.

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